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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/127,031	07/31/1998	KEISUKE ARAKI	35.C12892	9620

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EXAMINER

NGUYEN, THONG Q

ART UNIT PAPER NUMBER

2872

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/127,031

Applicant(s)

ARAKI ET AL.

Examiner

Thong Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2003 and 23 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 69-90 is/are pending in the application.
- 4a) Of the above claim(s) 73-76 and 80-90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 69-72 and 77-79 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 17 March 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendment (Paper No. 12) of 3/17/2003 and the Election (Paper No. 15) of 6/23/2003.

Election/Restrictions

2. Applicant's election with traverse of Invention I, Species I in Paper No. 15 is acknowledged. The traversal is on the ground(s) that all claims could be searched by the same examiner without undue effort and one examiner acts on all claims will be best in the interest of prosecution economy of time and quality. (See Election, Paper No. 15, page 11). This is not found persuasive because of the following reasons.

First, the different groups of invention are made based on the reasons as set forth in the restriction requirement which follows the requirement set forth in the MPEP. Applicant has argued that the examiner can examine all the claims directed to different inventions without undue effort is not correct.

Second, in the best interest of prosecution economy of time and quality is not a reason to negate a proper restriction.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

3. The drawings were received on 3/17/2003. These drawings are approved by the Examiner.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 69-72 and 77-79 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an optical system having a first optical component which is configured such that a diameter of a spot size near the intermediate image is two or more times a minimum diameter of a noise source near the intermediate image (see specification in page 15 (lines 16+) and page 20 (lines 19+)), does not reasonably provide enablement for an optical system having a first optical component which is configured such that a spot size near the intermediate image is two or more times a size of a noise source near the intermediate image. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 71 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 71 is indefinite because it is unclear about the element/component defined by "V" and "U" in the conditioned claimed. In other words, what component having the spot size "V" and what component having spot size "U"?

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 69-72 and 77-79, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunefumi et al (Japanese reference No. 8-292372, of record).

Tsunefumi et al disclose a zoom optical system and image pickup device using the system. The zoom optical system comprises at least two optical elements which are able to move relative to each other during a zooming process, an aperture stop whose diameter is able to vary to control the number of light passing therethrough, and an image pickup device for receiving the image of an object. Each optical element is a solid transparent body having an entrance refractive surface and a plurality of reflecting surfaces disposed off-axis or decenter with respect to the optical axis of the transparent body, and an exit refractive surface. The entrance surface and at least one of the reflecting surfaces form an object-side imaging section for forming an intermediate image of an object, and the exit surface and the rest of the reflecting surfaces form an image-side imaging section for transferring the intermediate image to a final image location. Regarding to the feature that the spot size near the intermediate image is two or more than a minimum size of a noise source near the intermediate image when an aperture of the aperture stop is minimized as recited in the claims 69 and 77, such a feature is merely that of a preferred embodiment

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and no criticality has been disclosed. Further, it is well known to one skilled in the art that in an optical system, if the F number is determined, the diameter of the stop is determined, and therefore, when the size of image is small as in a CCD camera or video camera with small pixels then the diameter of a small stop necessarily become small.

With regard to the conditions governing the spot size (or diameter) on the intermediate image and the final image as claimed, such features are inherently from the structure and the data provided from the examples described in the reference. If it is not inherent then it would have been obvious to one skilled in the art at the time the invention was made to modify the system provided by Tsunefumi et al by adjusting the optical characteristics of at least one reflecting surfaces of the transparent body for the purpose of reducing/eliminating the noise caused by dust or environment items located in the intermediate plane.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

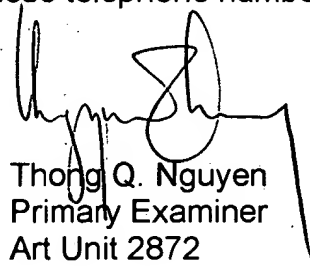
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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (703) 305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
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